

Crime Prevention Through Environmental Design

"The first thing to understand is that the public peace... is not kept primarily by the police, as necessary as police are. It is kept by an intricate, almost unconscious network of voluntary controls and standards among the people themselves... No amount of police can enforce civilization where the normal, casual enforcement of it has broken down."

~Jane Jacobs, The Death and Life of Great American Cities

We constantly respond to our environment, whether we are aware of it or not. Our responses help us interact safely in our communities. Effective design of the environment helps us feel safer and reduces opportunities for criminal acts to occur.

Crime Prevention Through Environmental Design, or CPTED (pronounced "sep-ted"), is based upon the belief that: "... the proper design and effective use of the built environment can lead to a reduction in the fear and incidence of crime and an improvement in the quality of life."

Crime Prevention is the anticipation, recognition, and appraisal of a crime risk and the initiation of some action to remove or reduce it. CPTED takes crime prevention a step further by studying the design of a site and attempting to create safer designs in new and existing developments. Design professionals have always integrated into their work resistance to natural threats such as fire, earthquakes, floods, and harsh weather. In recent years, design professionals have begun to recognize crime as a man-made hazard that can be resisted through quality design. CPTED is one component of good, quality urban design.

Five **interrelated** principles make up the CPTED concepts and strategies: Natural Surveillance, Natural Access Control, Territoriality, Activity, and Maintenance. The application of CPTED concepts and strategies is site specific.

NATURAL SURVEILLANCE

Natural Surveillance is the placement of physical features, activities, and people in a way that maximizes visibility.

This design concept is directed towards keeping intruders under observation, and therefore less likely to commit criminal acts. This will have a reverse affect where most people feel safer when they can see and be seen.

Natural surveillance utilizes design features to increase the visibility of a property or a building.

Features that maximize the visibility of people, parking areas and building entrances include unobstructed doors and windows, pedestrian-friendly sidewalks and streets, front porches and appropriate nighttime lighting.

Sample Design Strategies:

- Use open railings and risers whenever possible.
- Design buildings so the exterior doors are visible to the street and neighbors.
- Illuminate using white light for parking areas, and walkways.
- Avoid unassigned spaces; every space has a clear purpose and consequently someone to monitor it.
- Provide landscape and fencing that does not create hiding places for criminals.
- Elevate tree canopies to a height that provides adequate Natural Surveillance. If young trees are 'limbed up' too soon, it shortens their life and makes them more prone to failure.



The design of these row houses encourages interaction of neighbors due to front porches creating *Natural Surveillance* opportunities. The change in elevation between the porch and the sidewalk defines public and semipublic space change.

NATURAL ACCESS CONTROL

Natural Access Control is the physical guidance of people coming and going from a space by the judicious placement of entrances, exits, fencing, landscaping, and lighting.

This design concept is directed primarily at decreasing the opportunity for criminal activity by denying access to crime targets and creating a perception of risk for offenders. People are physically guided through a space by the strategic design of streets, sidewalks, building entrances, landscaping and gateways. Design elements are also useful tools to clearly indicate public routes and discourage access to private areas.

Natural access control also utilizes physical and mechanical means of controlling access through locks, alarm systems, signs, etc.

Sample Design Strategies:

- Define entrances with landscaping, and architectural features.
- Use automatically locking devices on common entrances.
- No more than 4 units to share the same entrance (individual entrances are recommended).
- Install shrubbery to control access to a private area. Fences may also be used to control access, but allow for surveillance opportunities as the type of fence is considered.
- Centrally locate elevators and stairwells where many users may observe them.
- When the design has apartment entrances off of internal corridors, limit the access into the corridors to one point.
- Addresses at least 4" in height should be located on both the front and rear of a unit's entrance.
- Keep balcony railings and patio enclosures less than 42 inches high.



Two examples of porch railings: the top example offers visibility and *Access Control*, the bottom example creates a hiding place.

TERRITORIALITY

Territoriality is the use of physical attributes that express ownership such as fences, signage, landscaping, lighting, pavement designs, etc.

This design concept also creates or extends a sphere of influence. People take more interest in something they own or when they feel intrinsically involved. Therefore, the environment should be designed to clearly delineate private spaces.

Users are encouraged to develop a sense of territorial control, while potential offenders, perceiving this control, are discouraged. This concept includes features that define property lines and distinguish between private and public spaces. This can be accomplished by such measures as landscape plantings, pavement designs, gateway treatments, appropriate signage, and "open" fences.

Sample Design Strategies:

- Define property lines: consider perennials, shrubs, decorative fencing, elevation changes, etc.
- Place signs marking public entry points.
- Each unit provided an individual entrance with overhang, porch, or entry stoop to promote ownership.
- Main entrance of single-entry building easily identifiable and includes plenty of usable glass.
- Change pavement for public versus private areas.
- Use appropriate signage and pavement markings to clearly identify where you are and to direct customers, guests, residents, deliveries, etc. to get to appropriate location or businesses.
- Define every space with a clear purpose enabling someone to inherently exercise control over it.
- Design lots, streets and homes to encourage interaction between neighbors.



Territoriality is in place on this street where the sidewalk with curb separates the semi-private space of the yard and porches from the street and sidewalk public space.

ACTIVITY SUPPORT

Activity support encourages interaction by putting activities in public spaces that are intended for use by residents or customers and other legitimate users and, therefore, discourages criminal acts.

This is more effective when activities are planned for times when the use of a space is minimal.

Sample Design Strategies:

- Provide playgrounds, game courts, open space in a central location promoting usage and visibility.
- Create opportunities for neighbors, tenants to meet.
- Provide desirable outdoor dining areas
- Choose exterior furnishings that do not encourage unwanted loitering or gathering in hidden areas.
- Avoid locating incompatible activities next to each other.
- Avoid shifts and situations where only one employee is present.
- Locate ATM's and other self-serve uses in very visible areas of the site.
- Parking should be available close to the stores for employees who work in the evening hours.
- Business associations should work together to promote shopper and business safety and the appearance of safety.
- Encourage programs, like the morning walkers, to provide additional natural surveillance before and after store hours.
- Coordinate whenever possible operating hours to coincide with those of neighboring businesses.
- In parking garages and large lots that are less active, consider cooperative relationships with other businesses that will utilize the upper decks and bring more legitimate users to the facility.



This sitting area offers Activity Support in this commercial area for both the parking lot and the businesses. Additional landscaping may be needed to utilize this area in the summer. Signs and displays in the business windows do not block visibility into and out of the businesses.

MAINTENANCE

Care and maintenance enable continued use of a space for its intended purpose. It also serves as an additional expression of ownership.

Deterioration and blight indicate less concern and less control by the intended users of a site and can be a sign of a greater tolerance for disorder. Proper maintenance protects the public health, safety and welfare in all existing structures, residential and non-residential, and establishes minimum requirements and acceptable standards.

Sample Design Strategies:

- Pick up trash and empty trash receptacles frequently.
- Keep windows clean and clear.
- Remove faded or outdated posters and broken signs.
- Carefully maintain all lighting and surveillance equipment.
- Keep building repaired and painted. Keep walkways clean.
- Use low maintenance building products in construction.
- Keep grass cut and eliminate weeds.
- Maintain lighting; consider timers, dawn to dusk sensors, and using long life bulbs.
- Maintain parking areas to a high standard without potholes or trash.
- Remove graffiti immediately. Consider vines or planted wall coverings to deter graffiti. Avoid blank spaces, which are an invitation to graffiti vandals.
- Keep all parking garage surfaces clean and light in color to reflect light, esp. if underground.
- Choose low-maintenance plants and plants that will naturally grow to the desired form or height to reduce maintenance, etc.



Separate trees from light poles for effective lighting. In this example, the light is only illuminating the tree canopy